DOCUMENT RESUME

ED 274 622 SO 017 656

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TITLE Orientations to the Future: A Comparison of Adolescents in Australia and Singapore.
PUB DATE 86
NOTE 39p.; Paper presented at the Annual Meeting of the American Educational Research Association (67th, San Francisco, CA, April 16-20, 1986).
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Affection; *Demography; Females; Foreign Countries; *Futures (of Society); Males; Nuclear Warfare; Secondary Education; Social Indicators; *Student Attitudes; *Values
IDENTIFIERS *Australia (Sydney); *Singapore

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ORIENTATIONS TO THE FUTURE: A COMPARISON OF ADOLESCENTS IN AUSTRALIA AND SINGAPORE

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ABSTRACT

Using an event listing approach, this study examined the personal and societal future orientations of 15 year old males and females in Singapore and Sydney. Three aspects were examined: content, affect, and time-span. Overall, the study found that adolescents perceived their personal and societal futures in separate non-interlocking planes, seeing more pleasant, proximal, personal futures and more unpleasant, distal, societal futures, especially in relation to nuclear war and political problems. Demographic and personal construct variables influenced this general pattern of future orientation.

ORIENTATIONS TO THE FUTURE: A COMPARISON OF ADOLESCENTS IN AUSTRALIA AND SINGAPORE

Developmentally, adolescence is perceived as a period of orientation to future goals in preparation for the transition to adulthood. Future thinking within a more realistic and extended time perspective and a life program is characteristic of adolescent development (Cottle & Kleinberg, 1974; Lessing, 1968; Verstraeten, 1980). Likewise adolescence is a period for the emergence of ideological orientation, idealism and concern with politics, social and moral issues (Kohlberg, 1973; Connell, 1977; Rest, 1979). This orientation and preparation, however, occurs within a social, cultural and historical context which in itself may influence conceptions of what is possible and/or desirable in the future. This study examines the content, affect and time-span of the personal and societal future orientation of young people in Singapore and Australia.

Most emphasis in the literature on future orientation has been given to how young people see their own personal futures in terms of goals, plans and decisions (Lewin, 1948, Nuttin, 1964; Raynor, 1974; Poole, 1983), particularly in specific content areas. For example, Trommsdorff, Lamm & Schmidt (1979) investigated adolescents' future orientation in terms of four domains of life: (a) personality and self-actualizations; (b) physical well-being and appearance; (c) family, and (d) occupation. Poole (1983) reported that adolescents conceived of their futures in thematic life domains, mainly related to work and marriage. Similarly, Fricke (1979) reported African children being concerned with 'education and profession' and 'founding one's family'. Chang (1983) goes so far as to argue that the thematic structure of orientation towards the future seems to be relatively free of culture.

Increasingly, the distinction is being made between a private (personal) and a public (societal) orientation to the future (Lessing, 1971, 1972; Sundberg, Poole & Tyler, 1983; Borghi, 1983) and the need to investigate each aspect of future orientation in the

person domain in relation to its social and other determinants (Trommsdorff et al., 1979; Boniecki, 1980; Borghi, 1983). The specific content domains identified in public (societal) future orientation have included: (1) major environmental problems facing all cultures (e.g. nuclear threat, resource depletion, population explosion, decrease in arable land, lagging food production, depletion of several non-renewable resources, and pollution (Boniecki, 1977); (2) the future of the world in general (e.g. uncertainty, stability, evolution and change, (Borghi, 1983); (3) the future of key social dimensions and institutions, e.g. science and technology, development, peace, politics, justice and liberty, communication, attitudes and values; and education (Borghi, 1983). Sundberg et al. (1983) identified primary categories of concern relating to physical objects and the environment, biological and population developments, psychological/ educational, human services, life style, economic events, and secondary categories relating to acquisition, world events, or local/regional and war and world destruction. The theme of war and peace emerges strongly in any grouping of adolescent concerns for the future in several international studies (e.g. a Finnish study of 7,000 12-18 year olds, Solantaus, Rimpela & Taipale, 1984; a Canadian study, Sommers, Goldberg, Levinson, Ross & La Carbe, 1981; a study of Soviet children, Chivian, Mack, Waletsky, Lazaroff, Doctor & Goldenring, 1985; research in the USA, Mack, 1984; European research on children and war, Taipole, 1984; Minnesota Youth Poll, Hedin, Hannes, Sinto, Erickson, 1984).

The question of affect concerning both personal and societal future orientations has also been investigated in terms of (1) optimism (Teahan, 1958; Trommsdorff et al., 1979); (2) optimism, pessimism and uncertainty (Borghi, 1983); and (3) anticipated pleasantness and unpleasantness (Sundberg et al., 1983). An interesting self-society disjunction was noted by Toffler (1974) who reported that adolescents did not perceive themselves in relation to the outside world (i.e. an absence of perceived interconnectedness). Consequently, while predicting world turmoil and the end of the world, young people did not perceive that these events would influence their personal lives (i.e. they still expected to finish high school, marry and have children). Boniecki (1980) argued that increasing alienation from the complex institutional structures of

contemporary Western societies might induce feelings of helplessness among individuals who feel unable to influence the community at large, thereby removing feelings of responsibility for the future of society as a whole.

Studies on youth and the nuclear threat point to a growing pessimism among youth (e.g. Beardslee & Mack, 1982, 1983, 1986; Backman, in press). For example, Backman (in press), reported a steady rise in those who worried about the nuclear threat (1976-1982) and a steadily increasing trend for both boys and girls to agree with the statement "nuclear or biological annihilation will probably be the fate of all mankind within my lifetime" (cited in Beardslee & Mack, 1986). The data showed this trend also by social class and ethnic background. Goldenring & Doctor (1981) found that youths who were most worried about nuclear war during their lifetime ranked high on measures of self-esteem and adjustment, again suggesting a self-societal future disjunction. Sommers, Goldberg, Levinson, Ross & La Carbe (1981) found that young people who expressed daily fear and were more anxious and fearful about nuclear war (societal future) also thought more about their personal future and felt they were more likely to have some influence on the political process. Beardslee et al., (1986) argue that despite such studies we do not fully understand the impact on young people of attitudes and beliefs about their society or about their future in general.

A third aspect of future orientation which has been examined relates to the length of the projected future event in time, termed 'extension' (Wallace, 1956 and Trommsdorff et al., 1979) or future 'time-span'/'time-horizon' (Boniecki, 1980; Sundberg et al., (1983). Some events such as retirement and school leaving have a life cycle social timetable (Boocock, 1979; Poole, 1983). This notwithstanding, Boniecke (1980) argued that most people look only three to five years ahead in terms of their future. Yet, cultural variation in time perspectives have been reported, although the patterns and domains remain unclear. For example, Shannon (1975) found that Anglo-Americans exhibited more extended futures than did Indians and Mexican Americans; Sundberg et al., (1983), that Australian adolescents showed longer future time spans than did Americans, and that Indian boys, but not girls, indicated longer time spans than either

Australians or Americans. In contrast, no differences were reported by Khoury & Thurmond (1978) in relation to future social time scales for Mexican Americans and Anglos, or by Mehta. Sundberg, Rohila & Tyler (1972) between Indian and American adolescents. Shannon (1975) interpreted his results as consistent with cultural expectancy theory rather than cultural differences per se, i.e. future orientation was consistent with expectations of Anglo-American adolescents who could expect to achieve and be rewarded in the future. Explanations for results in most of the studies cited are usually couched in terms of cultural values relating to future orientation.

In addition to the differences in future orientation reported in developmental and cross-cultural studies, some studies have reported social class and gender differences. For example, longer future-time perspective was found to be associated with higher socio-economic status (Le Shan, 1952; Vincent & Tyler, 1965; Lessing, 1968), and gender (e.g. Sundberg et al., 1983 found that Indian boys had a longer future time orientation than Indian girls).

The orientations of adolescent girls to their futures is changing. Traditionally, they have seen their futures in terms of marriage and family formation (Brannigan & Tolor, 1971; Lamm, Schmidt & Trommsdorff, 1976; O'Leary, 1977; Spanier & Glick, 1979; Zytowski, 1969). However, Elder & MacInnis (1982) identified two future goal frameworks (family-centred/domestic and career-oriented) for adolescent females in transition to young adulthood, and introduced a notion of a temporal frame of action linked to the experienced and anticipated life course. Marriage and parenting were the focus of the first frame (the shorter time span) and education and work in the second (more distant time frame). Today, socio-cultural expectations are changing with young women being accorded more choice in relation to their future roles (Fitzgerald & Crites, 1980; Harmon, 1981) and it could be anticipated that this would lead to change in the content and time frame of future events. Trommsdorff et al., (1979), for example, found that the future orientations of both males and females contained occupational categories (although girls had a less extended future orientation in the occupational domain) and family categories (although males tended to structure their future in this

domain to a lesser extent than girls). In the same study, males showed a greater preoccupation with 'physical well-being and appearance' in the more distant future while females were more concerned with 'personality and self-actualization' and 'occupation' in their more distant future time frames.

Australia and Singapore were selected as being two contrasting cultures in which to test the hypothesised relationships. Singapore is an eastern culture which has adopted aspects of modernity (political, social and economic change) which transform a society and involve achievement motivation, efficient time management, future planning and autonomous decision making (Inkles, 1969; Chang, 1984). Lee (1976) and Wu (1980) have outlined a set of assumptions underlying the values which permeate Singapore society and help define the concerns of youth, namely "futurity, ethos of work and achievement, urbanisation, and industrialisation and culture of technology". Australian society presents young people with contrasting views of the present and future. On the one hand there is future orientation, achievement, planning, long time-span (the work ethic); on the other, there is the set of messages associated with The Land of the Long Weekend, Conway (1978) and The Lucky Country, Horne, (1971); the hedonistic culture, with no long term planning and little thought of the future. Interestingly a similar cultural cleavage was reported by Borghi (1983) with respect to Western Europe; the North European culture involving work. long term efficiency and planning; the Mediterranean culture expousing a mode of life based on feelings, enjoyment of senses and pursuit of happiness.

The present study, then, building on the research cited above sought to:

(a) examine the perceptions and aspirations of adolescents concerning their personal and societal futures in two contrasting cultures - Australia and Singapore;

(b) consider personal and societal futures in terms of three dimensions - content, affect and time-span; and

(c) ascertain the influence of socio-demographic factors (social class, country, gender) on perceptions of the future.

In two previous studies (Poole, Cooney and Chang, 1985; Poole and Cooney, 1985) cultural differences were found on a number of personal dimensions: autonomy in

decision making, family cohesiveness, occupational aspirations and leisure preferences, which may be related to future orientation (e.g. work oriented vs hedonistic values, perceived stake in the future, expectancy values, independence vs dependence) so it was necessary to include them in the study as covariates when examining cultural differences of content, affect and time-span. On the other hand in the light of Shannon's explanation of cultural differences (Shannon, 1975) these relationships were examined in their own right. Specifically two hypotheses were tested: namely, that adolescents who are committed to their vocational futures (e.g., have high job aspirations) anticipate pleasant/optimistic personal and societal futures (generalization) whereas those with low vocational aspirations will anticipate pleasant/optimistic personal futures but unpleasant/pessimistic societal futures (disjunction/segmental).

METHOD

Sample

In any cross cultural study, comparability of samples is both crucial and problematic. The sampling frame used in this study aimed at some comparability along the dimensions of school systems, age of students, gender composition and urban setting.

The Singapore sample comprised 162 adolescents chosen at random from Grade 9 classes in four schools, themselves chosen to be a representative sample in terms of social class, academic ability and multi-racial composition. Since Singapore is a city state a large city, Sydney, was chosen from which to draw the Australian sample. Six schools were chosen to provide a representative sample and 440 adolescents selected at random from Grade 9 classes. The average ages of the two samples were 14.6 years (Australia) and 15.0 years (Singapore) and Table 1 shows the sample broken down by gender, social class and country.

TABLE 1 ABOUT HERE

Because of the sampling frame the Australian sample cannot be said to be representative of all Australian adolescents but can be said to be representative of adolescents living in a large urban setting in Australia.

Procedure

Most studies concerning the future orientation have used event-listing (people are asked to list or describe future time events, e.g. Mehta et al., 1972; Sundberg, et al., 1983) or story writing (e.g. "Future Prospects of my Life", Fricke (1979); "Myself in 10 Years", Poole (1983)). The event-listing technique has been used developmentally (Lessing, 1968) and cross-culturally (Mehta, et al., 1972; Sundberg, et al., 1983).

Research on personal orientation towards the future through writing essays was popular in the fifties and sixties (Gillespie & Allport, 1955; Oblinger, 1956; Krantz, 1961; Pouplier, 1963; Monks, 1965) although it began earlier with the future biography (Israeli, 1934). The projective story technique is an extension of this method (Kastenbaum, 1961; Meade, 1971; Connell, Stroobant, Sinclair, Connell & Rogers; 1975; Poole, 1983).

The instruments used in the present study involved event-listing and were developed by Sundberg & Tyler, and reported in Tyler (1978), in their cross-cultural studies of life possibilities (the 'Life Possibilities Questionnaire'). Part I of the questionnaire sought general background information on the students. Part II was concerned with Future Events. Students were asked to list things that they thought might happen in the future - their own personal future and then the societal (world or community) future. Concerning their own personal futures, young people were asked to list six events or occasions that they expected or hoped would happen in the future. They were then asked to estimate when they thought those events would occur and whether they would be perceived as pleasant or unpleasant events. A similar procedure was followed for societal or world events, except that students were asked to think of ten events that they thought would happen in the future. Part III of the questionnaire was designed to elicit adolescents' awareness of a range of occupations and their personal preferences within that range. Students were given ample time to write down all the occupations they were aware of and then to check those occupations they considered to be possible options for themselves, thus yielding two scores; number of occupations and options checked as perceived possibilities for self. In addition, responses were coded according to a socioeconomic status scale, following categories developed by Congalton

(1968) and Lancaster Jones (1968) (see Poole & Cooney, 1985, for full details of coding). Part IV contained questions relating to family cohesiveness and the desire for autonomy and independence. Items spanned several aspects of family functioning (e.g. friends, leisure, behavior,time management, education). The first nineteen items relate to the amount of time spent together as a family in various activities, while the next six are concerned with family climate in general. Items which measure self judgment of autonomy and reflect a desire for independence (e.g. 'I like to come and go as I please') complete the set. (For full details of coding categories see Poole, et al., 1985).

In Australia, the questionnaires were administered to small groups of adolescents (N = 20 to 30) by a small team of trained research personnel who read the instructions to the students and answered any clarification questions. The Singaporean subjects received similar instructions in their respective schools from the Singapore research co-ordinator.

Coding of the Future Events was by content analysis. Personal futures were coded into primary and secondary categories. The major primary categories were:

1. Education (study, graduations, grades, going to university);
2. Work (specific occupation, starting work, liking work, unemployment, retirement);
3. Courtship and marriage of self and others (dating, close relations, divorce, becoming a parent, grandparent);
4. Leisure and sports (free time activities, parties, sports);
5. Travel;
6. Health (sickness, general health, injuries);
7. Death of self and others.
8. Miscellaneous

Secondary codes included any of the above, where there was a clear double intent (e.g. acquisition of things (property, money); autonomy; moving away from dependence on others, e.g. parents; human services (helping, serving others in the community); and a specific occupation talked about.

In addition, a time estimation in months was made for each event together with a pleasant or unpleasant rating of those events. For societal events in the future, time

estimation and pleasant/unpleasant scores were also obtained together with content analysis. Seven primary category codes were developed:

1. Physical objects and environment (e.g. computers, space developments, pollution, weather, natural catastrophes and changes, nuclear events);
2. Biological and population developments (biological discoveries, population related events, food and drugs, malnutrition, epidemics);
3. Psychological, educational, communicative, information (mental events, consciousness, stress, beliefs, values, knowledge, information processing and explosion, mass communication);
4. Human services (non-medical human agency services, institutions, welfare, personal services, delinquency, violence, aggression);
5. Life style, family and social living (leisure, sport, family events, human relations, art, drama, entertainment, fashions, fads);
6. Economic events, employment, work (depression, inflation, poverty, labour events, strikes, unrest, work patterns);
7. Political, community and international events (legal events, political change, human rights, equalization of rich and poor, community actions, peace, revolution, war, class conflict, international relations);

A secondary scoring categorisation involved classifying future societal events as local/own country, other country, world events, war and world destruction.

Responses were check scored and inter-coder reliability correlations ranged from .86 to .95. In addition, a sub-sample of 40 subjects was administered the questionnaires six months later and interviewed in depth concerning their future plans and goals. For both personal and societal events there was a high degree of correspondence in terms of the content categories, as there was in relation to occupational and other choices (range .76 to .84).

RESULTS

Analysis

The first step in the analysis was to calculate, for each subject, the percentages of personal events falling into the different content categories together with the associated affects and time-spans. The affect associated with a category was taken as the proportion of events in that category which were perceived as pleasant and the time-span as the median time-span of events falling in that category. Overall measures of time-span and affect were calculated by taking the median time-span of all events listed, and the proportion of those which were regarded as pleasant, respectively. The data pertaining to societal future were coded in a similar way. Because of the small number of responses in some categories, several were combined. A list of the categories used for personal and societal events, together with a complete list of the variables used in the study is given in Table 2. The secondary classifications of content of the personal events were not included in the analysis because few responses fell into the framework.

TABLE 2 ABOUT HERE

Figure 1 shows the conceptual framework for the analysis; a consequence of which is that the appropriate statistical technique is multivariate analysis of covariance (MANCOVA) which allows an examination of the relationships between perceptions of the future and both the demographic and personal construct variables. Personal constructs were taken as covariates, demographic variables as factors, and perceptions of the future as the dependent variables. The three aspects of future orientation (time-span, affect and proportions of events in different categories) were analysed separately. Where proportions were used in an analysis, a variance stabilising transformation ($\sin^{-1}\sqrt{p}$) was used (Cox, 1970).

FIGURE ONE ABOUT HERE

Because of the conjectured relationships between future orientation and occupational and leisure choices, two variables were constructed. One was the proportion of occupational self possibilities classified as professional, while the other was the proportion of leisure activities seen as either academic or creative. Social class was determined by father's occupation, with high social class taken to include professional,

technical-services and technical-clerical occupations.

To simplify the presentation of the results, personal and societal futures are presented separately before comparing and contrasting them. Within each of the first two sections an overview of the data is given, followed by the results from the separate MANCOVAs for types of events, affect and time-span.

Personal Futures

Since all adolescents listed six events, the percentages in Table 3 indicate that, on average, they nominated about one event under travel (15.9%) and slightly more in each of the remaining categories. Overall, they were optimistic about their personal futures, with an average of 79% of events being classified as pleasant. Education had the lowest mean affect (.74) and travel the highest (.92). The average time span was 64.7 months overall: this varied from 36 months for education to 103 months for marriage.

TABLE 3 ABOUT HERE

The proportion of events in the different content categories was affected mainly by social class and country. Although the gender by country interaction was significant ($F = 4.54$; $df = 4,550$; $p < .001$), it affected only marriage. In the Australian sample, females had proportionally more events in this category (25.3%), than males (18.3%) whereas the converse was true for the Singapore sample (12.8%, 15.8%) Social class ($F = 6.94$; $df = 4,550$; $p<.001$) and country ($F = 8.41$; $df = 4,550$; $p<.001$) main effects were significant and affected most categories.

TABLE 4 ABOUT HERE

Percentages in Tables 4 show that adolescents from high social class backgrounds had more events grouped under education and travel (25.1%, 17.8%) but fewer under work (19.3%) than those from lower social class backgrounds (19.8%, 13.9%, 26.3% respectively). Singapore adolescents had more events classified under education and work (26.1%, 26.33%) but fewer under marriage than those in the Australian sample (20.4%, 21.9%, 16.2%, respectively).

The significant within cells relationship ($F = 10.8$, $df - 4,550$; p .001) concerned education: adolescents who had a large proportion of their occupational self possibilities

as professional also tended to have a large number of their personal events under education.

The overall median time-span for personal events was related to both demographic variables and personal constructs. Gender ($F = 20.1$; $df = 4,550$; $p<.001$) and country ($F = 6.86$; $df = 1,550$; $p < .001$) main effects were significant, as was the within cells relationship ($F = 3.92$; $df = 8,872$; $p<.001$). Females had shorter median time-spans than males (58 months, 67 months) and Australian adolescents (59 months) than their Singapore counterparts (71 months). These differences persisted when allowances were made for the way the events were distributed across the categories. Examination of the significant within cells relationship showed that adolescents with low autonomy and high family cohesion had longer median time-spans than those with high autonomy and low family cohesion.

The degree of optimism about personal future events differed significantly between the Australian and Singapore samples ($F = 26.8$; $df = 1,550$, $p < .001$): adolescents from Singapore had a higher affect (.86) than those from Australia (.76). There were no other significant relationships.

Societal Futures

Most adolescents in the samples listed nine events, and the majority ten. The data in Table 5 shows that the majority of events fell under either political (43.0%) or environment (35.1%). When classified according to the secondary classification most

TABLE 5 ABOUT HERE

were related to own country (36.1%), least to other country (10.3%) and 23.9% to war and destruction. The relationship between these two methods of classification is shown in Table 6: environment and lifestyle events fell mainly under own country and world events (about 50% and 40% respectively), the majority (87%) of economic events, fell under own country, and political events were distributed across three categories (own country 23%, other country 26%, and war 43%).

TABLE 6 ABOUT HERE

In contrast to the high average affect for personal events, that for societal events was significantly less (.40). Events grouped under lifestyle and psychological were seen as most pleasant (.60) and those under economic and political the least pleasant (.30, .20 respectively). The low affect for international events was obviously influenced by the very low affect accorded to war and destruction (.05).

The average median time-span for social events was 100.7 months and this varied from a low of 73 months for economic events to a high of 197 months for environment. The average time-span for events associated with war and destruction was 173 months.

When the primary classification was used the proportions of events in the various content categories were affected by gender and country through a significant interaction ($F = 15.8$; $df = 5,550$; $p < .001$). Percentages in Table 7 show that in the Australian sample, males saw proportionally more environmental, psychological and lifestyle events (37.1%, 6.2%, 9.9% respectively) happening than females (32.8%, 3.6%, 6.1%) whereas in the Singapore sample the converse was true. On the other hand, Australian males had proportionally fewer events grouped under political (40.2%) than females (46.2%) but in the Singapore sample, the opposite was true (49.6%, 33.1%). When males and females were combined there was no difference between the Australian and Singapore samples.

TABLE 7 ABOUT HERE

When the secondary classification was used, the gender by country interaction was still evident, this affecting only events grouped under own and other country, but the country main effect was now significant ($F = 67.6$; $df = 4,550$; $p < .001$). Overall, Singapore adolescents saw the future of society in terms of events related to their own country (59.7%) whereas Australian adolescents had a wider perspective with only 39.1% of their events under own country, 29.7% under world events and 22.9% under war and destruction. The outstanding feature was that 70.2% of Singapore females saw the future in terms of Singapore compared to 49.2% of males, whereas in the Australian sample the percentages for males and females were comparable (33.2%, 38.3%). To balance this, males in Singapore had more of their events grouped under other country (29.0%) than females (10.8%), but in the Australian sample the corresponding percentageswere similar (10.1%, 10.3%). In addition to these differences, the within

cells relationship with personal constructs was significant when the secondary classification was used. ($F = 5.08$; $df = 16,2304$; $p < .001$). Adolescents who had high proportions of occupational self possibilities in the professional class and leisure activities classified either as academic or creative had proportionally more societal happenings under other country and world events.

The median time-span for societal events was not related to any of the demographic or personal construct variables but for affect both groups of variables were significant. The country by social class interaction was just significant ($F = 6.38$; $df = 1,550$; $p < .02$) with the difference in affect between the high and low social class groups ($\bar{x}_{High} = .40$, $\bar{x}_{low} = .31$) for the Australian sample exceeding that for the Singapore sample ($\bar{x}_{High} = .55$, $\bar{x}_{Low} = .54$). Overall, Singapore adolescents had a more positive outlook towards the future of society (.54) than those in the Australian sample (.35). Examination of the significant within cells relationship ($F = 2.77$; $df = 1,550$; $p < .03$) showed that adolescents who saw proportionally more professional activities as self possibilities were more optimistic.

Personal and Social Futures Contrasted

To investigate the relationship between the types of personal events and the types of societal events listed by adolescents a MANCOVA was done using the transformed proportions of personal events as dependent variables, transformed proportions of societal events as covariates, and the demographic variables as factors. The within cells relationship was not significant ($F = 1.45$; $df = 25,2585$; $p < .05$) showing that the patterns of personal and societal events were independent.

The main differences between perceptions of personal and societal futures were affect and time span. While adolescents were relatively positive about their personal futures (mean affect = .78) they were less positive about the future of society (mean affect = .40). Their personal time-span was 65 months while that for society was 101 months. These differences were not related to any of the demographic or personal construct variables.

DISCUSSION

Content

In this sample of adolescents in Australia and Singapore, the general content of personal and societal futures was consistent with that reported elsewhere. For example, themes of career/work and family/marriage predominated (cf. Trommsdorff, et al., 1979; Poole, 1983; Fricke, 1979; Chang, 1983; Elder et al., 1982) with education also regarded as significant (cf. Fricke, 1979; Poole, 1983). However, interesting gender, country, class and personal construct variations occurred within content areas seen as central to the personal futures of all adolescents.

Australian females showed a much higher concern with a family-centred domestic orientation compared with females in Singapore. In Singapore, it was males who were higher in this area. Such results indicate that a cultural dimension needs to be considered in addition to the gender findings reported by Trommsdorff et al., (1979). In general, adolescents in Singapore gave greater emphasis to work and education in their personal futures (and consequently less to marriage) than did young Australians (consistent with national goals espoused by Wu (1980), Lee (1981). Adolescents who saw themselves in professional occupations in the future (self construct), conceived of education as more central to their personal futures, as did adolescents from high social status backgrounds. Work occurred less frequently as a content category for adolescents of high social class background, who saw a higher involvement in travel and leisure in their personal futures.

It can be seen, therefore, that the goals and plans of adolescents are directed towards two major clusters: (1) an instrumental set of plans relating to education and work; and (2) an expressive set, involving marriage, family, travel, leisure. Secondly, while these two content clusters can be discerned for all adolescents, results reported above make it necessary to view the personal futures of adolescents in terms of both demographic variation (gender, class, and country) and personal construct variation (e.g. occupational self perception). Adolescents' perception of their personal futures thus involve both socio-cultural expectations and personally salient dimensions.

In relation to societal futures, there was again considerable concurrence with previous studies which indicated that major environmental concerns such as war and destruction figured prominently in adolescent perceptions (e.g. Boniecki, 1977; 1980; Borghi, 1983; Solantus et al., 1984; Sommers et al., 1981; Chivian et al., 1985). More than one in five young people predicted war and destruction in the future (cf. Backman, in press). One in three showed concern over environmental issues. Somewhat unexpectedly, adolescents listed the majority of future events under political (nearly one in two). This concern with political events seems to run counter to studies reporting young people today as disengaged from the political process (e.g. Schwebel, 1982; Boniecki, 1980) and recent surveys of Australian youth (Australian Electoral Office, 1983). That young people in this sample were not more concerned with economic events is surprising, given the world-wide phenomenon of youth unemployment. When economic events were listed, they were mainly in relation to one's own country and not seen within a global perspective. Political and environmental events, however, were seen in a more macro and interdependent context (own country, other country, and war-destruction), although own country still predominated. Life-style events were also seen in terms of own country and world events.

Within this general pattern, there were again gender and country variations, but not class. Australian males emphasised more environmental, life-style and psychological events than Australian females whereas the converse was true for Singapore adolescents. Singapore adolescents saw the future mainly in relation to their own country. This was especially true for females. Australians, on the other hand, tended to see the future of society within a wider perspective. Two personal construct variables were important in terms of future orientation. Adolescents who had professional job expectations and saw themselves involved in creative and academic leisure activities tended to be more oriented to world events and to have a more global perspective.

In summary, then, two emphases emerge from adolescent societal futures: (1) a focus on major political and environmental issues, including war and destruction; and (2) a national vs global orientation, i.e. constructing the future in terms of one's own country in contrast to a wider perspective which includes other countries and world events. The data suggest that gender and cultural socialization factors contribute to variations in these emphases. There is clearly a need for political and environmental issues to be conceived in both national and global terms, especially in relation to war and destruction. A challenge for education could be to extend the horizons of young people beyond their national boundaries to a concern with global survival (political and environmental). A strategy for meeting this challenge is outlined briefly under educational implications.

Affect

The results for affect were again consistent with those from earlier studies (e.g. Teahan, 1958; Trommsdorff et al., 1979; Borghi, 1983; Sundberg, et al., 1983). Concerning personal futures, there was high general affect; for societal futures, there was much less optimism. The self-society disjunction discussed above (Boniecki, 1980; Sundberg, et al., 1983; Toffler, 1974) was evident: personal futures were seen in pleasant terms; societal futures with more pessimism and uncertainty (cf. Borghi, 1983). Concerning personal futures, Singapore adolescents showed more general optimism and while education emerged as an important content area (see above), its affect was low.

Concerning societal futures, affect was lowest on economic and political events, especially international events such as war and destruction. These findings are consistent with the affect reported by Beardslee et al., (1982, 1983, 1986), Backman (in press) and Borghi (1983). Affect was highest in relation to life-style and psychological events, suggesting that there may be a 'privatistic'/'hedonistic'/'retreatist' aspect developing in young people as a buffer against their perceptions of environmental and political threat (e.g. war and destruction) and economic failure (e.g. unemployment and

poverty). Such a view is a logical extension of Borghi's (1983) notion of hedonistic vs work-ethic values.

This general pattern of affect is modified by country, class, and personal constructs, but not by gender. Singaporean adolescents appear more optimistic about the future of society; as do adolescents who construct their personal futures in terms of a professional occupation. There was also a difference in affect between high and low social status groups; more so in Australia than Singapore.

These results highlight three aspects. (a) a continuance of a self-society disjunction in the perception of possible personal and societal futures; young people may be choosing to keep these aspects separate, as a means of exercising some agency or control in their life, or as a shield against anxiety about the future; (2) variation due to demographic and personal construct factors; (3) the emergence of a value dichotomy: a privatistic/hedonistic concern with work, family, education, life-style, travel, leisure (pleasant prospects) and a pervasive concern with war, destruction, politics, environment, and the economy (pessimistic, uncertain). Clearly, young people must be helped to develop strategies for bringing personal and societal concerns into some integrative framework. As Sommers et al. (1981) found, it was young people who were uncertain about societal future (war) who thought more about their personal futures and were more likely to become engaged in political processes. An extension of these possibilities is considered below in relation to self and society.

Time-Span

The findings concerning personal future time-span were consistent with Boniecki's (1980) view that young people generally look mainly three to five years ahead (64.7 months in this study). Educational events fall in to a more proximal time-frame (three years), marriage, into a more distal one (nine years). Overall, females tended to have a somewhat more proximal time-frame than males and Australian adolescents constructed their own personal futures in shorter time frames than did their Singapore counterparts (59 months vs 71 months). Adolescents high on personal constructs relating to family cohesiveness and low on personal autonomy revealed longer time-span. One possibility

might relate to the level of realism concerning long term goals and plans (e.g. Verstraeten, 1980), an aspect needing further examination. The results suggest that adolescents do work within proximal and distal time frames in constructing various aspects of their personal futures, and that, again, gender and country are influential.

Concerning societal events, the median time-frame was longer than for personal events (100.7 months cf. 64.7 months). Economic events were more proximal (73 months), environmental, war and destruction, most distal (197 and 193 months respectively). That is, by the turn of the century, young people anticipate war and destruction and major environmental problems (cf. Backman, in press; Beardslee et al., 1986). This pattern of expectations emerged regardless of demographic and personal construct factors. It was a universal prophecy by young people.

The time-span results overall suggest that young people are working within general time-frames (around five years ahead). Depending on domain of life, young people work within more proximal and distal frames. Their more proximal relate to both pleasant and unpleasant personal events (education, economic problems, family); their more distal to unpleasant (war, destruction and environmental damage). In a manner similar to that reported by Elder et al., (1982) in terms of future goal frameworks, young people have two time frames (proximal/distal) and two affective responses (pleasant/unpleasant). The more pleasant events are located in the most immediate time-frame, the more unpleasant are distal. This may indicate a further dimension of the self-society disjunction. If societal events are expected to be unpleasant, they can be relegated to the distant future and more cognizance given to a pleasant and more immediate future.

Summary

In their orientation to the future, then, adolescents in Australia and Singapore share many similarities in regard to personal and societal expectations. Yet there are marked differences. Singaporean adolescents are more concerned with their own country, with education and work, and with political aspects. Australians are more

concerned with environmental, life-style, and psychological parameters, and have a more global perspective. That they do not show as high an orientation to work, education and political processes may inhere in the cultural characteristics referred to earlier (e.g. Land of the Long Weekend, Conway, 1985; Lucky Country, Horne, 1971) and the cultural value dichotomy sketched by Borghi (1983). Singapore youth may indeed be imbuing the social and national goals expounded by their leaders (Wu, 1980; Lee, 1981; Chang, 1983), remaining optimistic in the process but becoming more national in their orientation.

In relation to gender differences, there is not much indication of changing self-future constructions by Australian girls. They continue to see their futures predominently in relation to marriage (cf. Brannigan & Tolor, 1971; Lamm, Schmidt et al., 1976; O'Leary, 1977; Spanier & Glick, 1979; Zytowski, 1969). That Singapore males show more concern with marriage is interesting and may relate to marriage-economic dimensions in that culture. Females in Singapore mainly construct their perceptions of societal futures in terms of their own country (national focus). It could be argued that girls in Australia and Singapore could be encouraged to enlarge their horizons in terms of their own life content and societal future (i.e. encouragement to develop a global perspective). In addition, boys in Australia could be encouraged to consider a wider range of life areas (e.g. leisure, marriage, travel). Interestingly, social class was not a major factor for the adolescents in this study. It did not contribute to differential patterns of personal and societal orientations to the future. Nor did the personal constructs selected in this study emerge as significant, except for high vocational possibilities (professional). As anticipated, young people who imagined that their futures would involve a professional career, and who favoured creative and academic leisure activities were more concerned about education, other countries and world events, a pattern of findings somewhat reminiscent of Sommers et al., 1981.

Overall, the study suggests:

(1) adolescents view their personal and societal futures in separate non-interlocking planes;

(2) personal futures are more pleasant and more proximal;

(3) societal futures are seen as more unpleasant and more distal;

(4) demographic and personal construct variables, especially the former, influence the orientations of adolescents to both their personal and societal futures.

Educational Implications

The role of education in helping construct perspectives of the future becomes more important in a world where young people are tending to see their personal futures and aspirations (for family and jobs) placed in jeopardy by their perceptions of possible societal futures (e.g. nuclear war). At least three possible strategies need to be examined:

(1) 'Living for the moment'. Schwebel (1982) has suggested that young people deal with fear of the future by 'living for the moment' and putting their faith in false hope or denial. With the idea of planning for the future discredited in the light of projected armageddon, there might emerge hedonism and impulsivity (Schwebel, 1982; Beardslee & Mack, 1982). Educators can help young people assess this strategy of coping and question whether social trends attributed to nulear and other future apprehensiveness lead to increased incidence of crime, suicide, violence and drug use by young people.

(2) 'Changing life plans'. For example, Lipton (1982) has argued that young people must learn to accept the uncertainty of their future (consciously or unconsciously), and that they then must plan their life work accordingly. He sees a shift away from living on through one's progeny (a biological plan) and making lasting contributions to one's society (a creative plan). Education can provide a context in which plans for the future are discussed and critically reflected upon.

(3) 'Self-society exploration'. This strategy involves an examination in school curricula, through balanced and multi-dimensional approach', of the possible futures facing the individual and society to help young people deal with an emerging view 'that the individual cannot alone save himself in a world and society where everything is deteriorating' (Borghi, 1983: 276). Young people need to be given a sense of agency, power, and possibility in terms of both their personal and social futures, so that the interdependence of self and society is understood. This might take the form of 'Peace

Studies' (especially in the International Year of Peace) or the development of comprehensive curricula on 'Preparedness for the Future' similar to that developed in Sweden (Bjerstedt, 1982). The Swedish program highlights: (1) the close connection between the past, present and future (i.e. yesterday's decisions have shaped our situation, just as today's decisions lay the foundations of the possibilities of tomorrow) (2) the diversity of alternative possibilities (the desirability of making people aware of the many alternatives which actually exist); (3) the ductility of the future (the idea that we are not passive victims of trends, but can choose, control and create important parts of the future); (4) interdependence (the idea of the interconnectedness of events); (5) the need for a responsible global approach (Bjerstedt, 1982: 12 - 13).

By examining these three approaches, educators can show young people the opportunity there is for exercising agency, power and control in one's life and in the society in which one lives. In strategy 1, the individual is overwhelmed by threats perceived to be beyond one's control and feels powerless. In strategy 2, changes to one's life plans are made, i.e. one exercises choice to change one's personal future, but there is still disengagement from society, perceived powerless mess. In strategy 3, there is a sense of agency in which through an analysis of self and social and political processes, there is a possibility of re-shaping the future so that personal and societal futures are assured and enhanced.

REFERENCES

Australian Electoral Office (1983). A Qualitative Analysis of Attitudes Towards Enrolment and Voting. Research Report (September).

Backman, J. (in press). American high school seniors view the military 1976-1982. Armed Forces and Society.

Beardslee, W.R. & Mack, J.E. (1982). The impact on children and adolescents of nuclear developments. In Psychosocial Aspects of Nuclear Developments (Task Force Report Number 20), Washington DC: American Psychiatric Association.

Beardslee, W.R. & Mack, J.E. (1983). Adolescents and the threat of nuclear war: the evolution of the perspective. Yale Journal of Biology and Medicine, 56, 79-91.

Beardslee, W.R. & Mack, J.E. (1986). Youth and children and the nuclear threat. Winter Newsletter, Society for Research in Child Development, 1-2.

Boniecki, G.J. (1977). Is man interested in his future? International Journal of Psychology, 12, 59-64.

Boniecki, G.J. (1980). What are the limits of man's time and space perspectives? Towards a definition of a realistic planning horizon. Technological Forecasting and Social Change, 17, 161-175.

Boocock, S.S. (1978). Getting started in adult life: crucial turning points for young people. In J.C. Flanagan (Ed.) Perspectives on Improving Education - Project Talent's Young Adults Look Back. New York: Praeger, 87-94.

Borghi, L. (1983). Youth perspectives on the future. Comparative Education, 19 (3), 269-283.

Brannigan, G.G. & Tolor, A. (1971). Sex differences in adaptive styles. Journal of Genetic Psychology, 119, 143-149.

Bjerstedt, A. (1982). Preparedness for the future as an educational objective in upper secondary school. School Research, 3, 1-21.

Lancaster-Jones, F. (1968). A social ranking of Melbourne suburbs. Australia and New Zealand Journal of Sociology 3, 93-110.

Le Shan, L.L. (1952). Time orientation and social class. Journal of Abnormal Soc. Psychology, 47, 589-592.

Lee, K.C. (1981). We should retain our oriental traditions. Address at Opening of the Third Senior Citizen's Week Convention at Victoria Theatre, November 21, Singapore

Lessing, E. (1968). Demographic, development and personality correlates of length of future time perspective. Journal of Personality, 36, 183-201.

Lessing, E.E. (1971). Comparative extension of personal and social political future time perspective. Perceptive Motor Skills, 33, 415-422.

Lessing E.E. (1972). Extension of personal future time perspective, age and life satisfaction of children and adolescents. Developmental Psychology, 6, 457-468.

Lewin, K. (1948). Time perspective and morale. In Lewin, K. (Ed.), Resolving Social Conflicts. New York: Harper, 103-124.

Mack, J.E. (1984). Research on the impact of the nuclear arms race on children in the USA. Forum, 7-9.

Mehta, P.H., Rohila, P.K., Sundberg, N.D. & Tyler, L.E. (1972). Future time perspectives of adolescents in India and the United States. Journal of Cross-Cultural Psychology, 3, 293-302.

Meade, R.D. (1971). Future time perspectives of college students in America and India. Journal of Social Psychology, 83, 175-182.

Monks, F. (1965). Uber Zukunftsbezogene Zeitperspektive bei Jugendlichen. Unpublished dissertation, Bonn, cited by Fricke, R. (1979). Orientation towards the future by Liberian school children. Human Development 22, 113-126.

Nuttin, J. (1964). The Future Time Perspective in Human Motivation and Learning: Proceedings of the 17th International Congress of Psychology. North Holland Publishing Co., Amsterdam.

Oblinger, H. (1956). Uber die Zukunftsvorstellung des Volksschulkindes. Unpublished dissertation, cited by Fricke, R. (1979). Orientation towards the future by Liberian school children. Human Development 22, 113-126.

O'Leary, V.E. (1977). Toward Understanding Women. Belmont, California: Brooks/Cole.

Poole, M.E. (1983). Youth: Expectations and Transitions. Melbourne: Routledge & Kegan Paul.

Poole, M.E., Cooney, G.H. & Chang, A.S. (1985). Family cohesiveness and autonomy: A comparison of adolescents in Australia and Singapore. Journal of Comparative Family Studies (in press).

Poole, M.E., & Cooney, G.H. (1985) Cultural differences in the explorations of career and leisure possibilities by adolescents in Australia and Singapore. Australian Journal of Education 29, 3, 249-265.

Pouplier, M. (1963). Das Bild des 60-Jahrigen Menschen bei 9/10 - und 13/14 Jahrigen Kindern. Unpublished dissertation, Bonn, cited by Fricke, R. (1979). Orientation towards the future by Liberian school children. Human Development 22, 113-126.

Raynor, J.O. (1974). Future orientation in the study of achievement motivation. In Atkinson, J.W. and Raynor, J.O. (Eds.), Motivation and Achievement. New York: Wiley.

Rest, J.R. (1979). Development in judging moral issues. Minneapolis: University of Minnesota.

Schwebel, A.I. (1982). Research-based interventions with divorced families. Personnel and Guidance Journal, 60, 9, 523-528.

Shannon, L.W. (1975). Future time perspective in three cultural groups: A cltural difference or an expectancy interpretation. Developmental Psychology, 11, 114-115.

Solantaus, T., Rimpela, M. & Taipale, V. (1984). The threat of war in the minds of 12-18 year olds in Finland. Lancet, 8380, 784.

Chang, A.C.S. (1983). The impact of father's occupational self-direction and school-ethos on adolescents' attitudes towards achievement motivation, time management, future planning and autonomy. Unpublished Ph.D. dissertation, Macquarie University, School of Education.

Chivian, E., Mack, J.E., Waletsky, J.P., Lazaroff, C.L., Doctor, R. & Goldenring, J. (1985, in press). Soviet children and the threat of nuclear war: a preliminary study. American Journal of Orthopsychiatry, 55.

Congalton, A.A. (1963). Occupational status in Australia: studies in sociology No. 3, Sydney, School of Sociology, University of New South Wales.

Connell, R.W. (1977) Ruling class, ruling culture: Studies of conflict, power and hegemony in Australian life. Cambridge, England: Cambridge University Press.

Connell, W.F., Stroobant, R.E., Sinlair, K.E., Connell, R.W. & Rogers, K.W. (1975) 12 to 20: Studies of City Youth, Sydney, Hicks Smith.

Conway, R (1978) Land of the Long Weekend Sim Books: Melbourne.

Cottle, T.J. and Kleinberg, S.L. (1974) The present of things future: Explorations of time in human experience. New York: Free Press.

Cox, D.R. (1970) Analysis of Binary Data. Methuen and Co. Ltd. London.

Elder, G.H. & MacInnis, D.J. (1982). Achievement imagery in women's lives from adolescence to adulthood. Journal of Personality and Social Psychology.

Fitzgerald, L.F. & Crites, J.O. (1980). Toward a career psychology of women: What do we know? What do we need to know? Journal of Counselling Psychology, 27 (1), 44-62.

Fricke, R. (1979). Orientation towards the future by Liberian schoolchildren: a contribution to the understanding of young West Africans. Human Development 22, 113-126.

Gillespie, J.M. & Allport, G.W. (1955). Youth's Outlook on the Future. New York: Doubleday.

Goldenring, J.M. & Doctor, R. (1981). California adolescents' concerns about the threat of nuclear war. In T. Solantaus, E., Chivian, M. Vartanyan, & S. Chivian (Eds.) Impact of the threat of nuclear war on children and adolescents (pp.112-133). Boston: International Physicians for the Prevention of Nuclear War.

Harmon, L.W. (1981). The life and career plans of young adult college women: A follow-up study. Journal of Counselling Psychology, 416-427.

Hedin, D., Hannes, K., Saito, R., Erickson, J. (1984). Minnesota Youth Poll: Youths' Views on the Nuclear Threat. Center for Youth Development & Research, University of Minnesota.

Horne, D. (1971). The Lucky Country. Penguin Books. Harmondsworth, Middlesex.

Inkles, A. (1969) Making Men Modern: On the causes and consequences of individual change in six developing countries. American Journal of Sociology 75, 208-225.

Israeli, N. (1934). Measurement of the outlook on the future Psychological Bulletin 31, 643-646.

Kastenbaum, R. (1961). Time dimensions of future time perspective: An experimental analysis. Journal of General Psychology 65, 302-318.

Khoury, R.M. & Thurmond, G.T. (1978). Ethnic differences in time perception: A comparison of Anglo and Mexican Americans. Perceptual and Motor Skills 47. 3 (Pt. 2), 1183-1188.

Kohlberg, L. (1973) Collected papers on moral development and moral education. Cambridge, Mars: Harvard University.

Krantz, M. (1961). Das Arbeitserlebnis der Jungen Werktatigen in der Industriellen Grosstadt. Unpublished dissertation, Bonn, cited by Fricke, R. (1979). Orientation towards the future by Liberian school children. Human Development 22, 113-126.

Lamm, H., Schmidt, R.W. and Trommsdorff, G. (1976). Sex and social class as determinants of future orientation (time perspective) in adolescents. Journal of Personality and Social Psychology 34, 3, 317-326.

Sommers, E., Goldberg, S., Levenson, D., Ross, C. & La Carbe, S. (1981). Children's mental health and the threat of nuclear war: A Canadian pilot study. In T. Solantaus, E. Chevian, M. Vartanyan, & S. Chevian (Eds.). Impact of the threat of nuclear war on children and adolescents, 112-133. Boston: International Physicians for the Prevention of Nuclear War.

Spanier, G.B. & Glick, P.C. (1979). The life cycle of American families: An expanded analysis. Journal of Family History, 5, 36-45.

Sundberg, N.D., Poole, M.E., Tyler, L.E. (1983). Adolescents' expectations of future events: A cross-cultural study of Australians, Americans and Indians. International Journal of Psychology 18, 415-427.

Taipole, V. (1984). European Research on Children and War. Forum, 13-14.

Teahan, J.E. (1958). Future time perspective, optimism and academic achievement. Journal of Abnormal Soc. Psychology, 59, 379-380.

Toffler, A. (1974) Future Shock. London: Bodley Head.

Trommsdorff, E., Lamm, H., Schmidt, R.W. (1979). A longitudinal study of adolescents' future orientation (time perspective). Journal of Youth and Adolescence, 8 (2), 131-147.

Verstraeten, D. (1980). Level of realism in adolescent fture time perspective. Human Development, 23, 177-191.

Vincent, J.W. & Tyler, L.E. (1965). A study of adolescent time perspectives. Proceedings of the 73rd Annual Convention of the American Psychological Association, 341-342.

Wallace, M. (1956). Future time perspective in schizophrenia. Journal of Abnormal Soc. Psychology. 52, 240-245.

Wu, T.Y. (1980). Roots of Chinese Culture. Singapore: Federal Publications Pty. Ltd.

Zytowski, G.G. (1969). Toward a theory of career development for women. Personnel and Guidance Journal, 47, 660-664.

Table 1 Sample Description

	Australia		Singapore	
	Male	Female	Male	Female
High	101	135	23	20
Low	83	121	60	59

Table 2 Variables used in analysis.

Demographic	Personal Constructs
*State	*Proportion of occupational self possibilities in professional class
*Gender	*Proportion of leisure self possibilities either academic or creative
*Social class	*Autonomy in decision making
	*Family cohension

Personal future[1]	Societal Future
*Proportions of events under:	*Proportions of events under:
- education	(a) Primary classification
- work	- environment (physical/biological)
- marriage	- psychological/human services
- travel/leisure	- lifestyle
*Overall affect	- economic
*Median time	- political
	(b) Secondary classification
	- own country
	- other country
	- world events
	- war and destruction
	*Overall affect
	*Median time.

[1] The miscellaneous category has been omitted from the analysis.

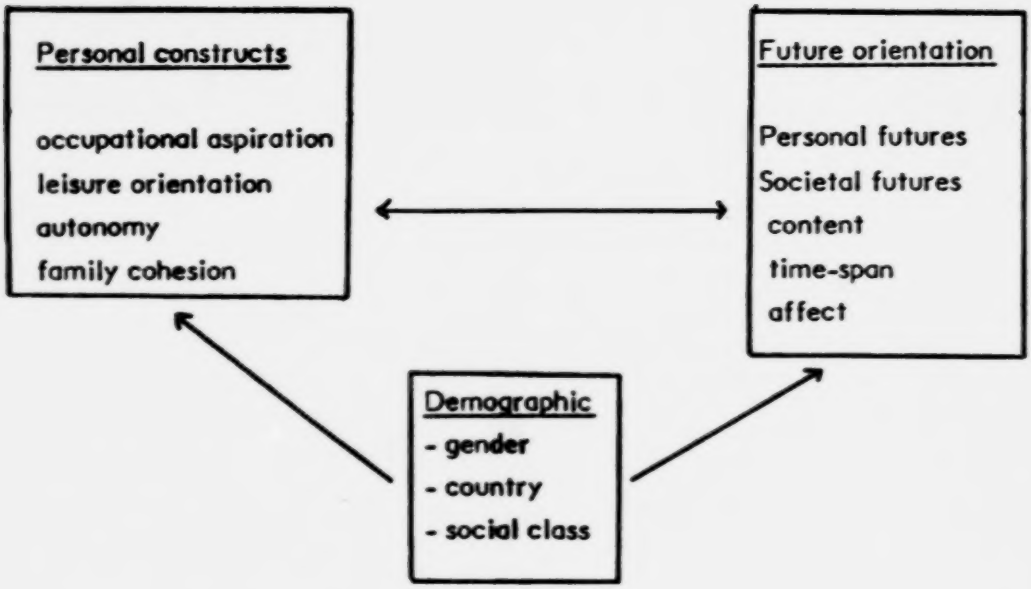

Figure One. Conceptual framework for analysis.

Table 3 Percentages of personal events in different content categories, means affect and time-spans.

Event category	Percentage of events (%)	Mean affect	Mean time (months)
Education	22.4	.74	36
Work	22.4	.82	72
Marriage	20.3	.87	105
Travel	15.9	.92	61
(Miscellaneous)	19.0	-	-

Table 4 Percentages of personal events in different content categories, classified by country, social class.

Event category	Country		Social class	
	Australia (%)	Singapore (%)	High (%)	Low (%)
Education	20.4	26.1	25.1	19.8
Work	21.9	26.3	19.3	26.3
Marriage	22.5	13.8	20.1	20.4
Travel	16.2	14.0	17.8	15.9

Table 5 Percentages of societal events in different content categories, mean affects and time-spans.

Event category		Percentage of events	Mean affect	Mean time (months)
(a)	Primary classification			
	Environment	35.1	0.46	197
	Psychological	5.1	0.59	126
	Lifestyle	7.5	0.60	76
	Economic	8.9	0.32	73
	Political	43.0	0.20	129
(b)	Secondary classification			
	Own country	36.1	0.40	122
	Other country	10.3	0.53	71
	World events	29.7	0.40	174
	War and destruction	23.9	0.05	173

Table 6. Relationship between primary and secondary classifications of societal events.

Primary classification	Secondary classification (row percentages)			
	Own country	Own country	World events	War
Environment	51.7	4.7	4.2	1.5
Psychological	58.4	3.0	19.3	19.3
Lifestyle	50.6	5.3	44.2	0
Economic	87.6	4.7	7 8	0
Political	22.9	25.6	8.2	43.3
Total	36.1	10.3	29.7	23.9

Table 7. Percentages of societal events in different content categories, by gender and country.

		(%) Australia			(%) Singapore		
		Male	Female	Total	Male	Female	Total
(a)	Primary						
	Environment	37.1	32.8	34.6	33.7	39.1	36.4
	Psychological	6.2	3.6	4.7	3.2	11.7	7.5
	Lifestyle	9.9	6.1	7.7	5.8	8.3	7.0
	Economic	6.6	11.3	9.3	7.7	7.8	7 8
	Political	40.2	46.2	43.7	49.6	33.1	41.4
(b)	Secondary						
	Own country	33.2	38.3	36.1	49.2	70.2	59.7
	Other country	10.1	10.3	10.4	29.6	10.8	20.2
	World events	32.5	27.4	29.5	8.4	11.8	10.9
	War	24.3	23.8	24.0	12.8	7.2	10.2